

Housing for All Beneficiary led construction or enhancement Mizoram

**URBAN DEVELOPMENT & POVERTY ALLEVIATION DEPARTMENT
GOVERNMENT OF MIZORAM**

Mizoram at a glance

Description	2011	2001
Population	1,097,206	888,573
Male	555,339	459,109
Female	541,867	429,464
Population Growth	23.48%	29.18%
Sex Ratio	976 females for every 1000 males	938 females for every 1000 males
Density/km2	52	42
Density/m2	135	109
Area km2	21,081	21,081
Literacy	91.33%	88.80%
Male Literacy	93.35%	92.53%
Female Literacy	86.72%	86.75%
Total Literates	848,175	661,445
Male Literate	438,529	350,105
Female Literate	409,646	311,340

Introduction



- Total number of city / towns to be covered under HFA Mission : **23**
- Number of city / towns to be covered in 2015 – 2016 : **8 District capitals. (DPRs for two cities have been prepared and submitted on 9th December 2015 for CSMC's consideration. Form 7C for 8 District Hqrs. also submitted)**
- Central share per household : Rs. 1,50,000 (1.5 Lakhs)
- Beneficiary contribution per household : Rs. 50,000
- Total central share to be utilized for 2015 – 2016 : **2,666 x 1,50,000 = Rs. 39.99 Crore**
- Total beneficiary share to be utilized for 2015 – 2016 : **2,666 x 50,000 = Rs. 13.33 Crore**

Summary of number of Beneficiaries



Sl.No	Name of the Town	Total Beneficiary households	Total beneficiaries to be covered in 2015-16 (Beneficiary led construction)	Beneficiaries Covered in 2015-16 (CLS)	Total Beneficiary led construction to be covered by 2022	Total CLS to be covered by 2022
1	Aizawl	8,738	864	500	4,738	4,000
2	Lawngtlai	2,351	680	60	1,931	420
3	Lunglei	3,840	150	120	2,450	1,390
4	Champhai	3,795	150	80	2,500	1,295
5	Saiha	2,839	150	70	1,912	927
6	Kolasib	1,559	260	70	1,000	559
7	Serchhip	1,430	260	60	1,000	430
8	Mamit	902	152	40	700	202
	Total	25,454	2,666	1,000	16,231	9,223

Introduction



- Name of the City : **Aizawl**
- State Level Nodal Agency :
 - Urban Development & Poverty Alleviation Department
- Implementing Agency :
 - Urban Development & Poverty Alleviation Department
- Date of Approval by SLSMC: **5th October, 2015**
- Total no of Beneficiaries : **4738** (Beneficiary led Construction)
- Project Cost : **Rs 9,476 lakhs**

Phasing for Implementation plan for Aizawl



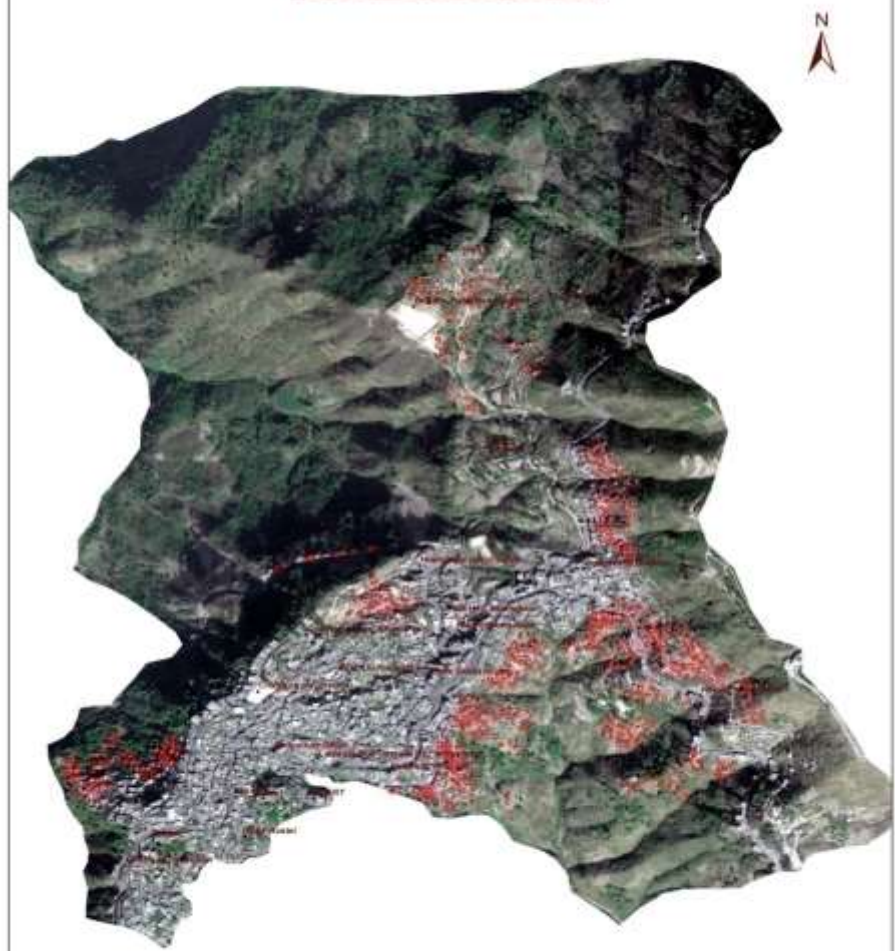
Phase	Year	No of Wards	Ward Name	No of Dwelling Units	Beneficiary-led	CLSS
Phase – I (2015 – 2018)	2015 – 16	3	Ward 2, Ward 5 and Ward 9	1364	864	500
	2016-17	3	Ward 1, Ward 12 and Ward 14	1358	858	500
	2017-18	3	Ward 4, Ward 16 and Ward 17	1331	831	500
Phase – II (2018 – 2020)	2018 - 19	3	Ward 7, Ward 8 and Ward 10	1229	674	625
	2019 - 2020	3	Ward 13, Ward 18 and Ward 19	1488	863	625
Phase – III (2020 – 2022)	2020 - 2021	2	Ward 3 and Ward 15	969	344	625
	2021 - 2022	2	Ward 6 and Ward 11	929	304	625
TOTAL		19		8738	4738	4000

Phase-I Implementation Plan for Aizawl



Sl. No	Year of Implementation	Ward	Area in Sq Mtrs	No of Household	No of Beneficiary HH (CLS + BnL)
1	2015	Ward 2	3204930	4853	835
2	2015	Ward 5	442894	3038	75
3	2015	Ward 9	598940	3458	454
4	2016	Ward 1	39944281	3359	781
5	2016	Ward 12	638220	3565	464
6	2016	Ward 14	2759689	3239	113
7	2017	Ward 4	872813	3273	702
8	2017	Ward 16	1689873	3048	506
9	2017	Ward 17	592828	2948	123

LOCATION MAP OF BENEFICIARY HOUSEHOLDS AT AIZAWL WARD-II



Legend

- Ward Boundary
- Beneficiary House



1:8,000



LOCATION MAP OF BENEFICIARY HOUSEHOLDS AT AIZAWL WARD-V



Legend

- Ward Boundary
- Beneficiary House



1:4,000



LOCATION MAP OF BENEFICIARY HOUSEHOLDS AT AIZAWL WARD-IX



Legend

- Ward Boundary
- Beneficiary House

1:4,000



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LOCATION MAP OF BENEFICIARY HOUSEHOLDS AT AIZAWL WARD-I



Legend

- Ward Boundary
- Beneficiary House

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**LOCATION MAP OF BENEFICIARY HOUSEHOLDS
AT AIZAWL WARD-XII**



Legend



1:5,000



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**LOCATION MAP OF BENEFICIARY HOUSEHOLDS
AT AIZAWL WARD-XIV**



Legend



1:12,500



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Population forecast (in lakhs) as per various methods:



METHOD/YEAR	2021	2031	2041
Polynomial 2nd order	3.8	4.4	5.0
Polynomial 3rdorder	22.6	32.5	44.8
Arithmetic	3.8	4.5	5.2
Incremental	4.1	5.4	6.9
Geometric	5.2	8.6	14.3
Exponential	6.8	11.4	19.4
Power	4.3	5.4	6.4
Log	3.2	3.5	3.7

BASIC ASSUMPTIONS FOR POPULATION PROJECTION



While adopting the population for the next three decades, the following factors were considered which would influence the district future growth:

- i) Urbanization trends in the district;
- ii) Economic activities such as trade and commerce, industrial development, and agriculture related activities;
- iii) Spatial growth pattern and scope of vertical development;
- iv) Scope to accommodate the future population consider the density of the district.

Population Projection- Aizawl



YEAR	Projected Population in Lakhs	Growth rate considered
2011	3.12 (existing)	
2021	5.60	46.50%
2031	8.20	46.50%
2041	12.00	46.50%

Future housing requirement for the city



YEAR	2001	2011	2021	2031	2041
Population/Projected (in lakhs)	2.61	3.12	5.60	8.20	12.00
Household size	4.20	4.80	5.00	5.00	5.00
Total Census houses – In lakhs (rounded figures)	0.61	0.65	1.12	1.64	2.4
Residential Housing stock (In lakhs) - Demand	0.61	0.65	1.12	1.64	2.40
Residential Housing stock (In lakhs) -Gap			0.50	1.00	1.75
Dilapidated Houses (%)	5.50%	0.60%	0.50%	0.450%	0.40%
Residential Housing stock –Dilapidated Buildings (In lakhs)		0.004	0.006	0.007	0.010
Residential Housing stock -Total (In lakhs) - Gap		0.004	0.506	1.007	1.760



It is evident from the above table that the total future additional housing requirement in Aizawl Urban agglomeration region is 0.5 lakhs (additional hh in 2021 from provisional hh in 2011) + 0.52 lakhs (additional hh in 2031) + 0.76 (additional hh in 2041) = 1.76 lakhs Dwelling Units

Abstract of Cost:

ABSTRACT OF COST FOR HFA - AIZAWL CITY

Sl.No	Items	Quantity	Unit	Rate/Unit	AMOUNT
1	Dwelling Units with septic tank	4738	Nos	Rs. 2,00,000.00	Rs. 94,76,00,000.00
				TOTAL:	Rs. 94,76,00,000.00

(Rupees Ninety four Cores seventy six lakhs only)

Introduction



- Name of the City : **Lawngtlai**
- State Level Nodal Agency :
 - Urban Development & Poverty Alleviation Department
- Implementing Agency :
 - Urban Development & Poverty Alleviation Department
- Date of Approval by SLSMC: **5th October, 2015**
- Total no of Beneficiaries : **1931**(Beneficiary led construction)
- Project Cost : **Rs 3862 lakhs**

Phasing for Implementation plan for Lawngtlai



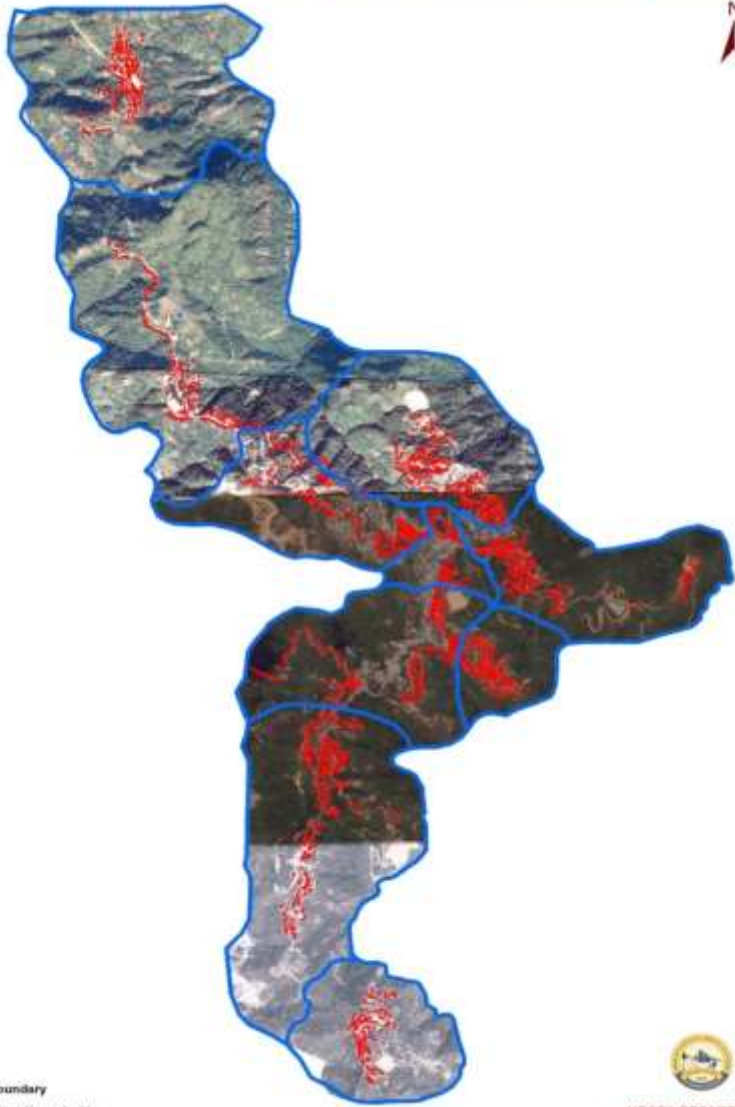
Phase	Year	No of Wards	Ward Name	No of Dwelling Units	Beneficiary led	CLSS
Phase – I (2015 – 2018)	2015 – 16	4	Ward 1,6,8,10	882	680	60
	2016-17	3	Ward 3,4,5	828	680	60
	2017-18	3	Ward 2,7,9	641	571	60
	2018 - 19					60
	2019 - 2020					60
	2020 - 2021					60
	2021 - 2022					60
TOTAL		10		2351	1931	420

Phase-I Implementation Plan for Lawngtlai



Sl. No	Year of Implementation	Ward	Area in Sq Mtrs	No of Household as per 2011 Census	No of Beneficiary HH
1	2015	Ward 1	909720	424	201
2	2015	Ward 6	963616	413	270
3	2015	Ward 8	2685645	133	207
4	2015	Ward 10	1569654	237	204
5	2016	Ward 3	620808	598	284
6	2016	Ward 4	1174252	708	344
7	2016	Ward 5	339851	179	200
8	2017	Ward 2	209828	600	141
9	2017	Ward 7	1557219	360	381
10	2017	Ward 9	679829	258	119

LOCATION MAP OF BENEFICIARY HOUSEHOLDS

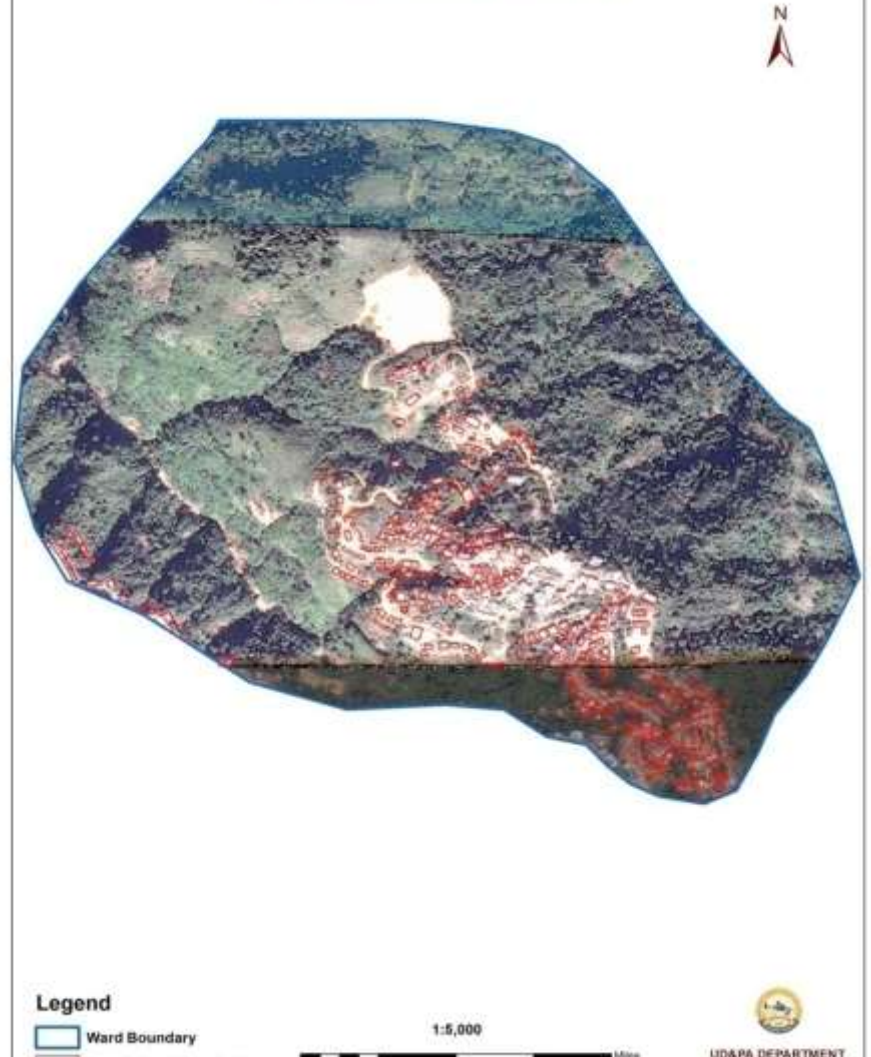


Legend
Ward Boundary
Beneficiary Households



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**LOCATION MAP OF BENEFICIARY HOUSEHOLDS
AT LAWNGTLAI WARD-I**



Legend
Ward Boundary
Beneficiary Households

1:5,000

0 0.04 0.08 0.16 0.24 0.32 Miles





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**LOCATION MAP OF BENEFICIARY HOUSEHOLDS
AT LAWNGTLAI WARD- II**



Legend

-  Ward Boundary
-  Beneficiary Households

1:2,500





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GOVERNMENT OF MIZORAM

**LOCATION MAP OF BENEFICIARY HOUSEHOLDS
AT LAWNGTLAI WARD- IV**



Legend

-  Ward Boundary
-  Beneficiary Households

1:6,000



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POPULATION OF LAWNGTLAI TOWN



LAWNGTLAI TOWN POPULATION

YEAR	1981	1991	2001	2011
Population	-	9366	14600	20830

BASIC ASSUMPTIONS FOR POPULATION PROJECTION



1. There is positive effect of medical facilities on the decline of death rate and increase in birth rate giving a natural increase in population.
2. There is improvement in public utilities and services which give natural increase in population.
3. There is political, economical, and social stability in the country.
4. There is no war or insurgency occurring in the country which may affect the death rate.
5. There is no natural calamity occurring in the geographical area which may affect the death rate.
6. Arithmetical Increase method, Geometrical increase method and Incremental Increase method are used for calculating the population projection, and the average of the above method is taken to work out the requirements of Lawngtlai town as given in the followings:

Population forecast as per various methods:



Present population: 20830

Method/Year	2021	2031	2041
Arithmetic Increase method	26562	32294	38026
Geometrical Increase method	31002	46141	68672
Incremental Increase method	25647	31461	38270
AVERAGE	27737	36632	48323

HOUSING PROJECTION OF LAWNGTLAI TOWN



YEAR	2011	2021	2031	2041
Population projected in Lakhs	0.208	0.277	0.366	0.483
Household size	5.3	5	5	5
Total Census Household - in lakhs	0.039	0.055	0.073	0.096
Residential Housing Stock Gap - in lakhs		0.016	0.018	0.023
Household Demand - in Lakhs	0.023	0.039	0.057	0.08

HOUSING PROJECTION					
Sl. No.	Year	Population	Average no of person in a house	No. of Household	Requirement of Housing
1	2021	27737	5	5547	3988
2	2031	36632	5	7326	5767
3	2041	48323	5	9665	8106

Abstract of Cost:

ABSTRACT OF COST FOR HFA - LAWNGTLAI CITY

Sl.No	Items	Quantity	Unit	Rate/Unit	AMOUNT
1	Dwelling Units with septic tank	1931	Nos	Rs.2,00,00 0.00	Rs.38,62,00,00 0.00
				TOTAL:	Rs.38,62,00,00 0.00

(Rupees Thirty eight cores sixty two thousand only)

Building Specification (Plan and Design):



- The specification for construction of Dwelling Units under Beneficiary – led construction is prepared by the nodal Department as under: (Building plan and design is enclosed)
 - The type of building to be constructed in the project is ‘Semi-pucca Building’, with carpet area of 31.95sqm and having kitchen, toilet, living room and one bedroom.
 - The foundation is an isolated RCC footing as per design up to plinth level.
 - Column is made RCC up to sill/skirting height.

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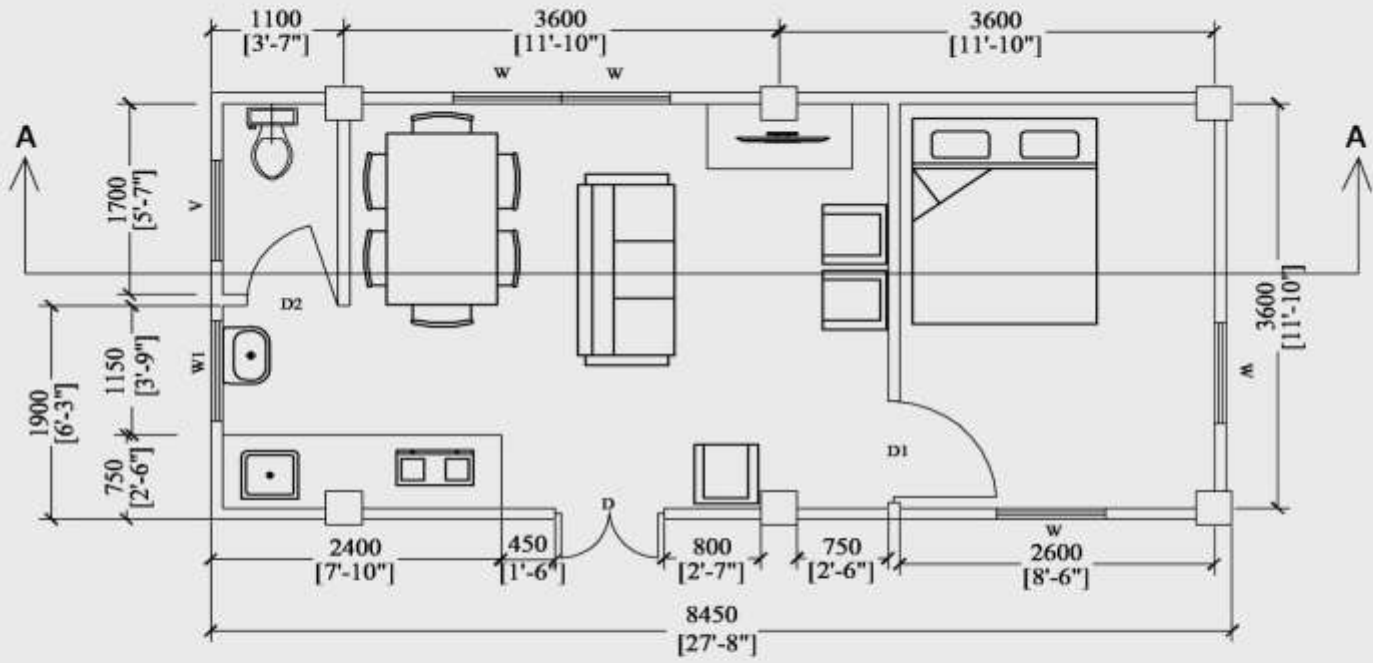
- All other post (upright) and beams, doors, windows and ventilation frames will be of local wood timber, which is economical and cost effective.
- Walling upto skirting level and Bathroom walls are made of CGI sheet as per design.
- Asbestos Cement Sheet Walling will be used as it is cost effective, suited to geo-climatic condition and light.
- Instead of using RCC slab floor, wooden plank flooring will be used as it is cost effective. This will also reduce the self - weight load of the building.

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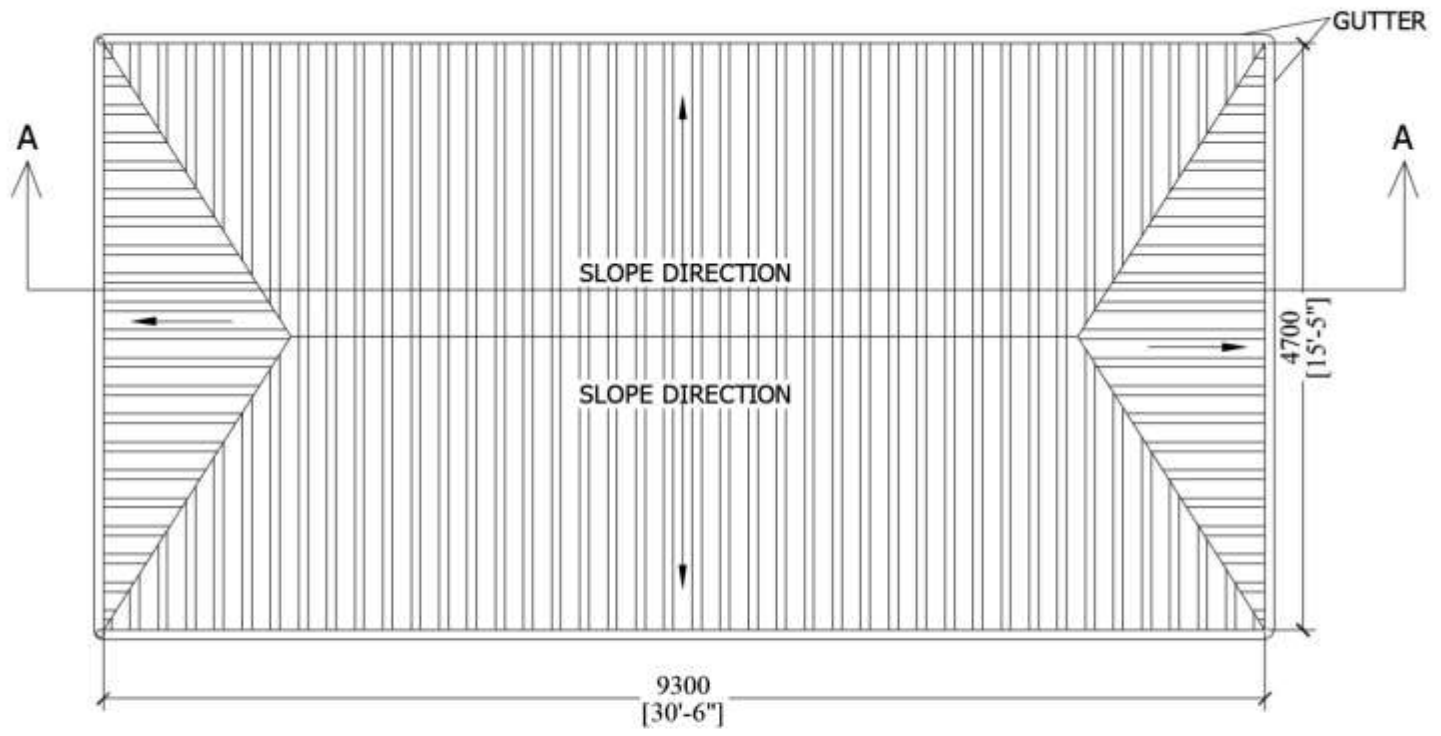


- Sloping roof with G.S sheet over rafter and purlins made of wood for rain water harvesting.

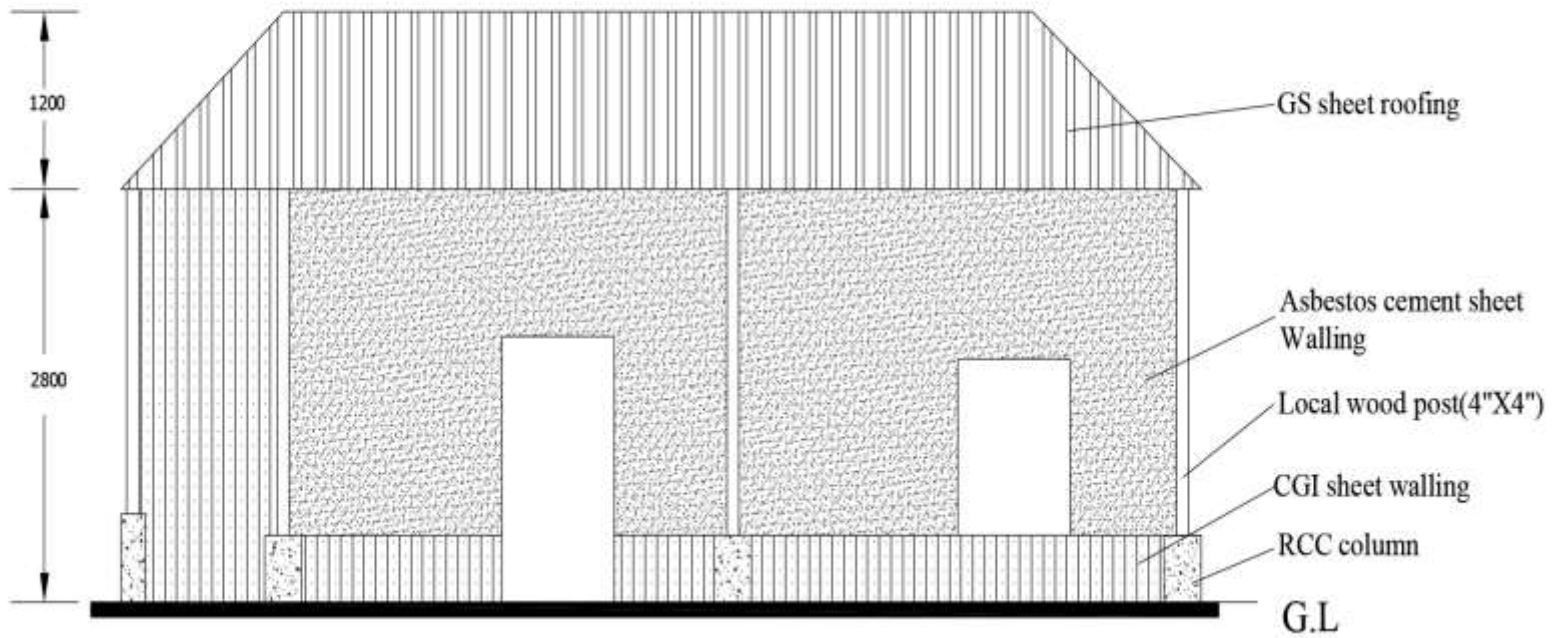
- The specifications and materials to be adopted are based on:
 - i. Fund allocation.
 - ii. cost effectiveness.
 - iii. Lightness in view of high earthquake risk.
 - iv. Rain water harvesting.



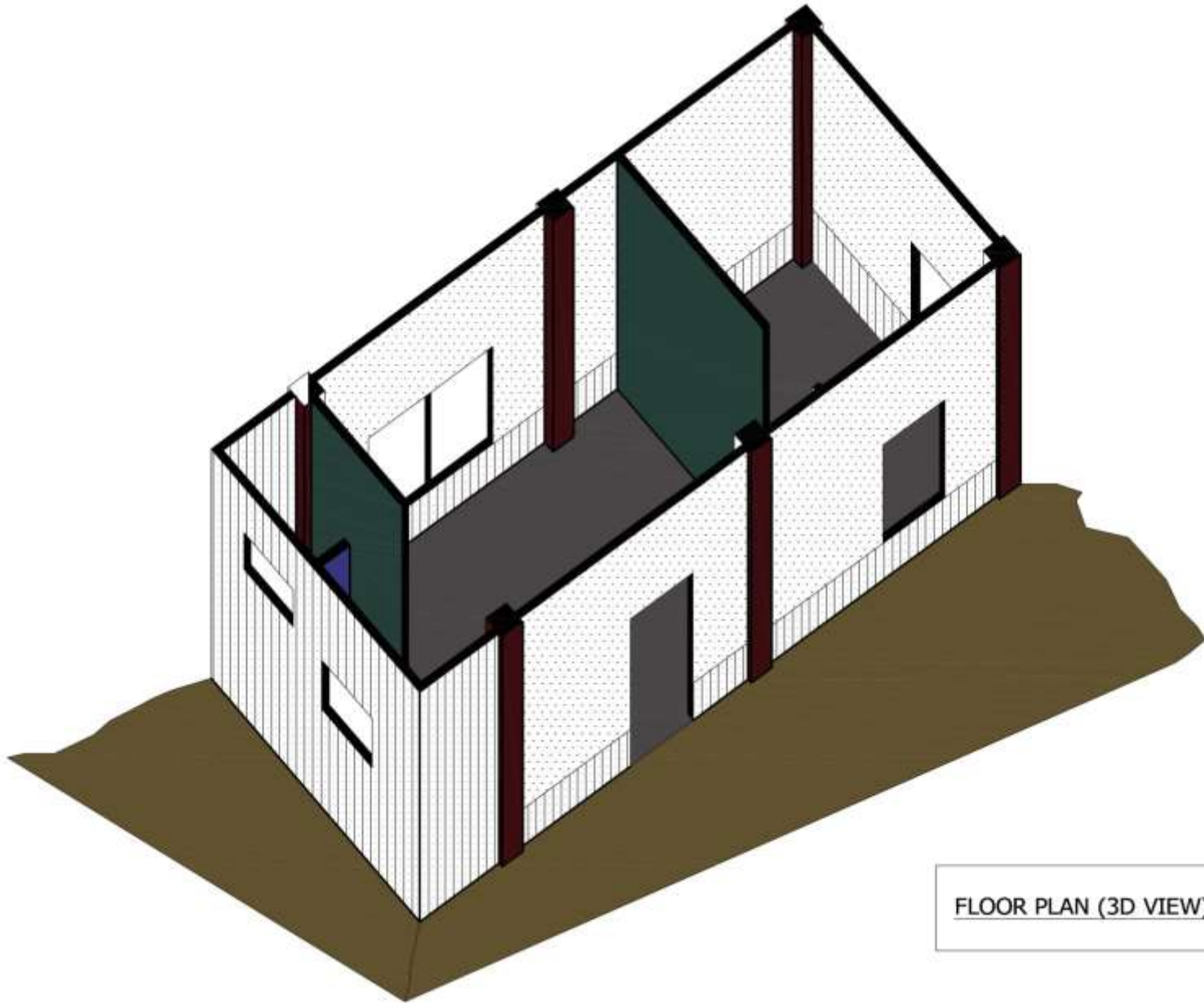
FLOOR PLAN



ROOF PLAN



FRONT ELEVATION



FLOOR PLAN (3D VIEW)



3D VIEW

Examples of Beneficiaries





LALNUNHLIMA'S HOUSE
CONSTRUCTED UNDER IHSDP



Dwelling units constructed under IHSDP



Thank you